

# MINERALS, ROCKS, VOLCANOES AND EARTHQUAKES

## UNIT OVERVIEW

Earth Science at its greatest. Students explore the fascinating world of geology, learning everything from the causes of earthquakes and volcanoes to how to make a fossil.

Part I of the unit uses notes photocopied onto overhead transparencies to give students most of the knowledge-based material in the unit. The activities and worksheets included follow closely with the material in the notes. Part II - "Optional Activities" adds flexibility to the unit and suggests assignments which can be coordinated with the main lesson topics, used as enrichment or used at the end of the unit as fun, culminating activities.

## PART I - LESSON TOPICS AND STUDENT ASSIGNMENTS

1. **The Earth - From Core to Crust** (1 Class) - Students learn the composition of the earth including the core, mantle and crust then complete a "Geology Wordsearch".
2. **Plate Tectonics** (2 Classes) - Students develop an understanding of plate tectonics (continental drift), supporting evidence and do a worksheet, "The Break-up of Pangea".
3. **Earthquakes** (2 Classes) - Students understand the causes of earthquakes and write a "Newspaper Story" reporting a major earthquake.
4. **Volcanoes** (2-3 Classes) - Students learn about the causes and types of volcanoes. Students complete a map activity, "Locating Volcanoes and Earthquakes", and a colouring activity entitled "Three Types of Volcanoes".
5. **Mountain Building** (1 Class) - Students discover how plate tectonics relates to mountain building and complete a pictogram activity entitled "Between A Rock And A Hard Place".
6. **Minerals** (1 Class) - Students learn the definition of a mineral, some common types of minerals and study crystals in the activity, "Grow Your Own Crystals".
7. **Rocks** (2 Classes) - Students learn about the three main types of rocks and complete two activities - "Rock and Mineral Identification" and "Crossword Puzzle".
8. **Review and Exam** (2 Classes) - Students complete a "Review" worksheet and write an exam.